CONSERVATION

8.1 SUSTAINABLE DEVELOPMENT
8.2 NATURAL RESOURCE CONSERVATION
8.3 AIR QUALITY AND PUBLIC HEALTH

Introduction

The principles of conservation emphasize humankind's relationship to the natural environment and recognize the social and environmental benefits that can be achieved through the application of these principles. These benefits can accrue to all citizens as well as to future generations. The appropriate practice of conservation, including the implementation of sustainable development, can therefore contribute to a sense of social equity between present and future residents of Golden Hill.

Many elements of conservation and sustainability have much broader geographic and political relationships and may be more suited to implement on a citywide or regional basis. At these broader levels, the State of California has enacted legislation related to global climate change and the City of San Diego has adopted a Climate Action Plan. However, much can be done to further conservation goals at the local community level, and individual communities can also be at the forefront of the policy discussion. At a Citywide level, the General Plan envisions that San Diego will become an international model of sustainable development. It provides policy guidance for the long-term conservation and sustainable management of the City's natural resources, acknowledging that they help define the City's identity, contribute to its economy, and improve its quality of life. Specific Conservation Element policies relate to sustainable development, open space and landform preservation, water resource management, urban runoff management, air quality, biological diversity, wetlands, energy independence, urban forestry, and environmental education.

Golden Hill recognizes the importance of natural resources and the need for conservation. Many residents are very environmentally aware and actively participate in maintaining sustainable lifestyles and clean and healthy natural surroundings. Preservation of natural features and resources will depend on the integration of sustainable development practices. Implementation of the Conservation Element's policies and recommendations through development project review, infrastructure investment, and individual action is intended to conserve natural resources and minimize ecological footprints within the community.

CONSERVATION ELEMENT GOALS

- Implementation of sustainable development and 'green' building practices to reduce dependence on non-renewable energy sources as well as to lower energy costs, reduce emissions and reduce water consumption.
- Preservation of the natural character of open space for its biological diversity and ecosystem value as well as the relief from urban development that it provides.
- Protection of natural canyon landforms and habitat from building encroachment and incompatible uses.
- Restoration of habitat values within disturbed natural landscapes.
- Maintenance of scenic resources and public access to open space and enhancement where needed.
- Application of sustainable storm water management techniques to support the surrounding landscape and reduce impacts on urban infrastructure, canyon drainages and the marine environment.
- Creation of sustainable landscapes that are re-generative, increase energy efficiency and contribute positively to community aesthetics.
- Foster a community that is supportive of regional and local initiatives to improve air quality.

The Conservation Element is closely linked with other Plan elements. Key conservation topics and some of their related policies in other element are shown in Table 8-1.

Table 8-1: Community Plan Conservation-related Topics and Policies

Conservation Topic	Community Plan Policy
Reduce the community's carbon footprint	LU-2.7, LU-2.10, LU-2.11, LU-2.19-2.21, ME-1.1-1.11, ME-2.1-2.8, ME-3.1-3.7, ME-4.5, ME-4.7, ME-4.10, ME-4.11, ME-4.14, ME-4.16, PF-1.8, PF-1.12, RE-2.2
Improve pedestrian mobility and comfort	UD-2.27-2.31, ME-1.1-1.6
Develop a sustainable urban forest	UD-2.35, 2.38, 2.40
Reduce urban heat island effect	UD-2.35, 2.38, 3.11, 3.74

Improve air quality by encouraging landscaping	UD-3.72, 2.35, 2.38, 2.40
Employ sustainable/green building techniques	UD-3.73-3.76
Conserve water resources	RE-2.2, UD-3.74(f)
Control urban runoff	PF-1.12, RE-4.2, UD-3.11, 3.75, 3.32(c)
Conserve landforms, canyon lands & open space	LU-2.15-2.18, RE-2.4, RE-4.2, RE-4.4-4.6, UD-3.26-3.31
Protect biological diversity within open space	RE-4.1, UD-3.32

General Plan Cross-reference Table

The General Plan establishes citywide policies to be cited in conjunction with community plan policies. General Plan policies may also be further referenced, emphasized or detailed in a community plan to provide community-specific direction. The General Plan policies particularly significant to Golden Hill are listed by their identifiers in the cross reference table (Table 8-2) below.

Table 8-2: General Plan-related Topics and Policies

Community Plan Topic	General Plan Policy
Reduce the community's carbon footprint	CE-A.2
Employ sustainable/green building techniques	CE-A.5
Reduce construction and demolition waste	CE-A.8
Use sustainable building materials	CE-A.9
Implement sustainable landscape design and maintenance	CE-A.11
Reduce urban heat island effect	CE-A.12
Conserve landforms, canyon lands & open space	CE-B.1

Apply Environmentally Sensitive Lands Regulations	CE-B.2
Incorporate trails and greenways	CE-B.5
Conserve water resources	CE-D.1(d) & (h), CE-D.5
Control urban runoff	CE-E.2
Improve air quality by landscaping	CE-F.4
Protect biological diversity within open space	CE-G.1, CE-G.3
Develop a sustainable urban forest	CE-J.1
Support urban agriculture	CE-L.3

8.1 SUSTAINABLE DEVELOPMENT

Sustainable development meets the needs of the present while conserving resources to ensure the ability of future generations to meet their needs. The General Plan bases its goals and policies regarding climate change and natural resources on a number of basic principles intended to guide development to conserve natural, non-renewable resources through sustainable development practices. This model of development considers a balance between natural resources and economic prosperity while protecting the public health, safety and welfare and making our built environment more resilient and healthy.

The City's main responsibility when implementing State climate change legislation centers on its authority to regulate land use. Through sensible land use regulation that reduces the number of vehicle miles travelled and promotes sustainable building and development practices, the City and the community can achieve a meaningful reduction in carbon emissions. Actions that reduce dependence on the automobile by promoting walking, bicycling and transit use are key aspects of any strategy to reduce carbon emissions. Golden Hill is well-positioned to reduce dependence on the private automobile due to the community's central location in the region, generally walkable street grid, and access to transit services.

At the community plan level, policies and initiatives that further General Plan sustainable development policies would protect and improve habitat values of open space, increase the urban forest, and prioritize sustainable development practices. Sustainable building and development practices include adaptively retrofitting and reusing existing buildings; constructing energy efficient buildings with healthy interior environments; reuse or recycling of building material; creating quality

outdoor living spaces; providing storm water infiltration; conserving water and promoting renewable energy, including solar.

Policies

CE-1.1 Build upon the community's existing street grid network to create a more functional environment for pedestrians and bicyclists and reduce local dependence on automobile transportation (also refer to Urban Design Element, *Streetscape and Public Realm* section, and Mobility Element, *Active Transportation* section).

CE-1.2 Reduce development project-level greenhouse gas emissions to acceptable levels by incorporating sustainable building and development practices (also refer to Urban Design Element, *Green Building Practices and Sustainability* section), applying site-specific mitigation measures, and adhering to standardized measures outlined in the City's Climate Action Plan.

- **a.** Encourage the adherence to LEED standards for construction to achieve environmental benefits through new development and redevelopment projects.

CE-1.3 As part of a comprehensive energy-reduction strategy, promote the continued use or adaptive reuse of existing buildings in conjunction with any needed upgrades to their energy use efficiency.

- **a.** Preserve existing buildings with important architectural or historic character as valued community assets.
- **b.** Preserve structures that meet the Historical Resources criteria for designation and adaptively reuse if necessary to maintain their economic viability.

CE-1.4 Create meaningful, visually and functionally cohesive outdoor gathering space within multifamily developments designed to provide natural ventilation to individual residences and minimize solar heat gain.

CE-1.5 Encourage the use of solar and other renewable energy systems to supplement or replace traditional building energy systems, including the use of solar water heating systems.

CE-1.6 Provide energy-efficient lighting within the public right-of-way and/or retrofit existing street lighting to be energy-efficient. Use solar powered lights where practical.

CE-1.7 Encourage the retrofit of buildings to capture and utilize rain water for landscape irrigation and to implement graywater reuse systems.

CE-1.8 Utilize small City-owned sites not suitable for recreation use as opportunities for community gardens, parks, or local composting sites when feasible.

CE-1.9 Improve energy and water conservation in the operation and design of existing and new public facilities.

CE-1.10 Promote community initiatives to provide locally sourced and more environmentally sustainable goods and services.

CE-1.11 Increase the size and scope of the community's urban forest (also refer to Urban Design Element *Urban Forest and Street Trees* section)

CE-1.12 Design and construct development to retain significant, mature and healthy trees located within required landscape setbacks, and within other portions of the site as feasible.

CE-1.13 Plant or replace street trees utilizing low water use species to fill existing gaps and provide continuous, regularly spaced tree canopies (also refer to Urban Design Element, *Streetscape and Public Realm and Urban Forest / Street Tree Master Plan* sections).

8.2 NATURAL RESOURCE CONSERVATION

Conservation of the community's remaining open spaces, canyon landforms, natural habitats and public views is important. While the General Plan, Climate Action Plan, this community plan, San Diego's Multiple Species Conservation Program Subarea Plan, and zoning regulations provide the primary legal framework for natural resource conservation, the community's residents play an important role in determining the ultimate success of preservation and restoration programs. The boundaries of many residential neighborhoods are created by canyons, providing an opportunity not only for visual enjoyment of these unique areas but also neighborhood involvement in canyon protection, education and restoration efforts.

Open Space, Landforms & Natural Habitats

State law recognizes that open space land is a limited and valuable resource that should be conserved wherever possible. Open space serves as visual relief to urban development, and adds character and identity to a community and its neighborhoods. Protecting Golden Hill's open spaces, including canyon landforms and steep hillsides, and their natural resources, is a fundamental component of resource conservation efforts in the community, including air and water quality improvement efforts. Open space has value for managing urban runoff and protecting water resources, understanding geology, mitigating the effects of climate change, and complementing and enhancing urban forestry efforts. Therefore, sustainable development should conserve open space, natural landforms, and natural habitats to the maximum extent feasible.

"Open Space" as a land use designation applied in the community is discussed in the Land Use Element. Open space may be publicly or privately owned. Most publicly-owned parcels within canyon open space are also identified as dedicated open space parkland. Open space lands and resource-based parks (e.g. Balboa Park) are also discussed in the Recreation Element as valued resources for public enjoyment.

As mentioned above, canyon landforms are a major defining characteristic of the community and its neighborhoods. Steep hillsides are associated with canyons and, to a lesser extent, terraced landforms. Through long-standing policies private development has largely been kept to canyon edges, leaving many canyons intact as valuable open spaces although development has occurred within steep hillsides to some extent. Preservation of canyon landforms and steep hillsides is important to the community.

The community includes three major canyon landforms, 32nd Street, 34th Street (Juniper) and Switzer canyons. Switzer and 34th Street Canyons are also shared with North Park and Balboa Park. Portions of these canyons have been disturbed by residential development within the canyons and

along the canyon rims, as well as by ongoing disturbances from illegal trash disposal and other activities. Street improvements have also intersected with or protruded into these canyons which, in combination with the community's development over time, has interrupted the natural topographic and biological continuity of the canyon systems. However, breaks in the development that surround canyon interfaces also provide important opportunities to interact with these open spaces. For example, Golden Hill Elementary School and some informal small parks are located adjacent to canyon open space. While access to canyons can provide recreational opportunities, the improvement of habitat and wildlife value within canyons is also important to the community.

Multiple Species Conservation Program & Biological Diversity

The Multiple Species Conservation Program (MSCP) is a long-term habitat conservation planning program for San Diego County. The City's MSCP Subarea Plan was adopted in 1997, and the Multiple Habitat Planning Area (MHPA) is the Subarea Plan's habitat preserve area. The MHPA was designed to be a managed, connected network of habitat and open space to ensure long-term biological diversity. Biological diversity means the degree of variation of life forms within an ecosystem. The Subarea Plan provides policies, management directives and acquisition requirements for the preserve, as well as Land Use Adjacency Guidelines for development within or adjacent to the MHPA. The MHPA, as shown in Appendix B, includes several of the canyon systems within Golden Hill.

Natural habitat areas in the community include the remaining locations of indigenous plant communities, restored native plant communities, and naturalized landscapes, mainly found in the canyons and adjacent hillsides. These areas include coastal sage scrub, chaparral, grasslands, riparian/wetlands, and native and non-native woodland habitats. These habitats support a variety of migrant and year-round fauna, including California gnatcatcher and Cooper's Hawk, by providing shelter, foraging opportunities, and connectivity to other local and regional habitats.

"Urban" canyons provide habitat for native species to continue to reproduce and find new territories, and provide necessary shelter and foraging opportunities for migrating species (primarily avian species). They also contribute to the public's experience of nature and the local native environment. Conserving biodiversity will require effective protection, management, and restoration of remaining natural habitats.

Natural Resource Mapping

As part of the community plan update process, the areas designated as open space in the 1988 Community Plan were reviewed using detailed maps available through Geographic Information Systems (GIS) software. The areas intended for preservation by the San Diego MSCP Subarea Plan were also reviewed.

As a result, many areas designated Open Space in the 1988 Community Plan were found to contain a significant amount of existing development (e.g. houses, streets). The Multiple Habitat Planning Area (MHPA) boundary established by the MSCP Subarea Plan was particularly affected by development and did not correlate well to either the existing Community Plan's open space boundary, nor to the actual location of sensitive biological resources intended for conservation.

While the framework for open space conservation in the 1988 Golden Hill community plan allowed some development within open space, especially along canyon edges, the General Plan and Multiple Species Conservation Program intend mapped open space specifically for conservation of sensitive natural resources and limit any type of development that impacts these resources. Therefore, a comprehensive, systemic approach was undertaken as part of the development of this community plan in order to evaluate the boundaries of community plan open space and the MHPA with respect to their effectiveness for protection of existing natural resources. This evaluation resulted in the reconfiguration of the open space boundary established in the 1988 Community Plan to exclude most developed areas from open space due to their lack of natural resources. Areas that contained sensitive biology that were previously excluded from the MHPA were added to the MHPA as part of a MHPA boundary line correction. The correction of the open space mapping for the Golden Hill, North Park, and Uptown communities resulted in the addition of 89.2 acres of land containing sensitive biological resources and steep slopes to the MHPA and the deletion of 65.5 acres of developed/urban lands from the MHPA, for a net gain of 23.7 acres to the MHPA (refer to Appendix B for details).

Environmentally Sensitive Lands Regulations

The City's Environmentally Sensitive Lands (ESL) regulations are intended to protect, preserve, and, where damaged, restore the environmentally sensitive lands of San Diego. These lands include steep hillsides, sensitive biological resources, flood hazard areas, coastal resources and lands within the MHPA. ESL regulations prohibit disturbance of natural resources wherever they are located within private or public property and contain development regulations that allow development within sites containing environmentally sensitive lands subject to certain restrictions. Development in Golden Hill is expected to comply with ESL regulations, and any impact to habitats as the result of development would be mitigated in accordance with the provisions of ESL regulations and the City of San Diego's Biology Guidelines.

Policies

CE-2.1 Follow applicable requirements of the Environmentally Sensitive Lands regulations, Biology Guidelines, and MSCP Subarea Plan for the preservation, mitigation, acquisition, restoration, and management and monitoring of biological resources.

CE-2.2 Avoid grading of steep hillsides and other significant natural features. Where this is infeasible, minimize grading to the least sensitive portions of the site and design development to follow the natural landforms.

CE-2.3 Re-vegetate graded or disturbed areas and areas of invasive vegetation to restore native habitat value and minimize soil erosion and instability.

CE-2.4 Preserve areas mapped as designated open space through easements, open space dedication and/or granting of fee title ownership to the City (refer also to Land Use Element Figure 2-1).

CE-2.5 Support canyon habitat restoration efforts and invasive species removal by seeking grant funding and working with neighborhood and community groups involved in these efforts.

CE-2.6 Restore or enhance natural biological values and improve visual aesthetics where streets and storm drain systems abut or cross canyons landforms or steep hillsides. Habitat restoration efforts should aid wildlife movement by providing vegetative cover and controlling and directing community access to designated trails.

CE-2.7 Repair and retrofit storm drain discharge systems in open space areas to prevent erosion and improve water quality by adequately controlling flow and providing filtration. Storm drain outfalls should limit the use of concrete in favor of more natural, vegetated designs.

CE-2.8 Foster local stewardship and develop positive neighborhood awareness of the open space preserve areas with environmental education programs that address the local ecosystem and habitat preservation provided through local schools, community groups, neighborhood and homeowner's associations, and non-profit groups. Incorporate hands-on learning via neighborhood hikes or other initiatives that present information and increase interest in the natural environment.

CE.2.9 Consider incorporating 32nd Street and 34 Street Canyons into any regional park proposal for the Chollas Creek watershed.

Canyon Sewer Program

As the City of San Diego developed, sewer lines were placed within canyons to utilize gravity flow to transport sewage. Of the 2,894 miles of sewer lines in the city, 253 miles are currently situated in canyons and other environmentally sensitive areas. These pipelines have historically had limited cleaning because the original maintenance paths were not adequately constructed or maintained to prevent overgrowth of non-native vegetation. As a result, a number of sewer spills have occurred within urban canyons or other inaccessible areas over the years. In order to address this problem, the City initiated the Long-Term Canyon Sewer Maintenance Program in 2001. The program's focus is to evaluate each of the City's sewer lines in canyons and environmentally sensitive areas for long-term maintenance access needs.

The City Council also adopted two Council Policies related to sewer lines in environmentally sensitive areas. Council Policy 400-13 identifies the need to provide maintenance access to all sewers in order to reduce the potential for spills. The policy requires that maintenance access minimize environmental impacts in environmentally sensitive areas to the maximum extent possible through the use of sensitive path design, canyon-proficient maintenance vehicles, and preparation of plans that dictate routine maintenance and emergency access procedures. Council Policy 400-14 outlines a program to evaluate whether sewage flow can be redirected out of canyons and environmentally sensitive areas. The policy includes an evaluation procedure that requires both a physical evaluation and a cost-benefit analysis. If redirection of flow outside the canyon is found to be infeasible, the preparation of a long-term maintenance and emergency access plan is required. The plan would prescribe long-term access locations for routine maintenance and emergency repairs along with standard operating procedures identifying cleaning methods and inspection frequency.

Policies

CE-2.10 Evaluate the impacts of sewer cleaning and maintenance actives located in the community to assure that they are effective, efficient and environmentally sensitive.

CE-2.11 Continue communication between the community and the City to report sewer spills or other potential problems as quickly as possible in order to minimize environmental damage and scope of repair.

Scenic Resources & Public Views

Preservation and enhancement of scenic resources and public views are important to maintain community and neighborhood character. Due to the community's sloping topography, public views (both near and far) are common. Prominent views include the natural scenic amenities of San Diego Bay, Balboa Park, Switzer Canyon, and the 32nd Street and 34th Street canyons. Unimproved rights-of-way, or 'paper streets', are common in the community and provide opportunities for public views when they intersect or abut canyons or steep hillsides. Views from public vantage points (e.g. public streets, trails, parks) are intended to be protected by application of policies found in the Urban Design Element of community plan.

Water Resources Management

The amount of water on Earth remains constant over time. However, water moves between different geographic locations and phases (e.g. mist, rain, snow) through a process known as the water cycle. In San Diego, the natural water cycle is dominated by moist air from the Pacific that condenses as rain, fog or mountain snow and collects within the rivers and streams of local watersheds. Due to the pronounced dry season in the local climate, rivers and streams can flow intermittently and rainfall collected by local watersheds is insufficient to supply water to the region's population. Therefore, the primary water supply for San Diego comes from sources outside the region, largely from the Colorado River and watersheds in Northern California. The City's historically reliable water supply is credited to its ability to secure and import water from these sources. However, these sources face limitations, especially in times of drought. The conveyance systems needed to provide this water also consume resources, particularly large amounts of energy.

The City does not have direct control over its imported water supply but is a member agency of the San Diego County Water Authority, which is responsible for securing the region's imported water supply mainly from the Metropolitan Water District of Southern California in Los Angeles. The California Constitution requires that uses of the state's water be both reasonable and beneficial, and places a limitation on water rights by prohibiting waste and unreasonable use. However, the interpretation of what is wasteful can vary depending on circumstances such as drought conditions.

Water should be available in sufficient quantity and quality without compromising ecosystems to ensure a sustainable, reliable supply. Urban water supply is influenced by demand pressure such as population growth, management approaches, and lifestyle needs and choices, as well as environmental factors such as water quality and climate variability. A water supply strategy that reduces water demand and promotes reuse and more effective management increases water use efficiency. This can reduce water stress on human populations and ecosystems. Water use efficiency is therefore an important aspect of environmental sustainability.

Policies

CE-2.12 Encourage new public and private development and building retrofits to incorporate as many water-efficient practices as possible in their design and construction, for example:

- **a.** Use recycled and/or gray water landscape irrigation systems;
- **b.** Retrofit public spaces and public rights-of-way with low-water use vegetation and/or alternative permeable surface materials that meet adopted landscape regulations;
- **c.** Implement Urban Design Element Policies UD-3.17, UD-3.18 and UD-3.59;
- **d.** Ensure that any "community greening" projects utilize water-efficient landscape design.

Urban Runoff Management

Urban runoff is surface water runoff generated from developed or disturbed land associated with urbanization. Increases in impervious surfaces lead to fewer opportunities for water runoff infiltration within the landscape. This increases the magnitude and duration of storm flows, contributing to urban flooding, and provides a source for sediment and pollutants to enter watersheds and downstream waterbodies. Urban runoff is the largest pollution source of Southern California's coastal beaches and near-shore waters.

Urban runoff control programs typically focus on managing the effect that new impervious surfaces have on stream channels, but may also remediate existing problems. Golden Hill is within the Pueblo San Diego Watershed which ultimately discharges into San Diego Bay. Local community initiatives to reduce consumption of potable water for landscape irrigation and effectively manage storm water runoff can also help achieve important regional goals to reduce dependence on imported water and protect water quality within streams, bays and the ocean.

Policies

CE-2.13 Incorporate sustainable site planning (Low Impact Development) practices that work with the natural hydrology of a site to reduce urban runoff, including the design or retrofit of landscaped or impervious areas to better capture and use storm water runoff onsite (also refer to the Urban Design Element).

CE-2.14 Encourage property owners to design and retrofit landscaped and impervious areas to better capture storm water runoff.

CE-2.15 Identify opportunities to implement additional hydro-modification management measures to protect natural drainages from erosion, water pollution, and other water-related problems. Give particular attention to the steeper canyon drainages receiving runoff directly from developed areas via storm drains or other conveyance systems.

CE-2.16 Require development projects to implement and maintain storm water best management practices to limit water pollution, erosion and sedimentation.

8.3 AIR QUALITY AND PUBLIC HEALTH

Air is an important resource shared by all members of a community. Suitable air quality is important for healthy living and working environments. Poor air quality due to pollution from various sources

harms humans, animals, plant life, water quality and aesthetics (e.g. visibility). It creates health problems particularly for children, the elderly, and persons with respiratory problems.

Local air quality is affected most significantly by motor vehicles and other fossil-fuel burning vehicles, which account for approximately 80 percent of air pollution emissions in the San Diego region. Freeways are a primary source of concentrated adverse health effects resulting from air pollution. These associations diminish with distance from the pollution source. The impact of air pollution is a community concern for Golden Hill.

The General Plan Conservation Element addresses air quality in the San Diego Air Basin and includes policies designed to improve air quality on a citywide level. Location-specific conditions can lead to ongoing community-based recommendations for air quality improvement.

Policies

CE-3.1 Implement a pattern of land uses and street designs that foster walking, biking and transit as modes of travel.

- **a.** Require that new development, renovation or redevelopment of housing, schools and active use parks within 500 feet of the outside travel lane of a freeway or highway take the following steps in order to minimize the potential health effects of air pollution: Complete an air quality analysis for the project site and proposed land use;
- **b.** Use site planning measures where feasible to locate sensitive receptor uses outside of the area where health risks are known to be unacceptably elevated;
- **c.** When site planning measures are determined infeasible, incorporate mitigation measures as part of the development proposal such as individual dwelling ventilation systems, HEPA filters, inoperable windows facing the freeway, and design of the development to locate usable open space where it will be most shielded from the freeway .

CE-3.2 Encourage street tree and private tree planting programs as well as the retention of mature landscaping along freeways and throughout the community to increase absorption of carbon dioxide and air pollutants.